Cutting Through the High-modulus Hype

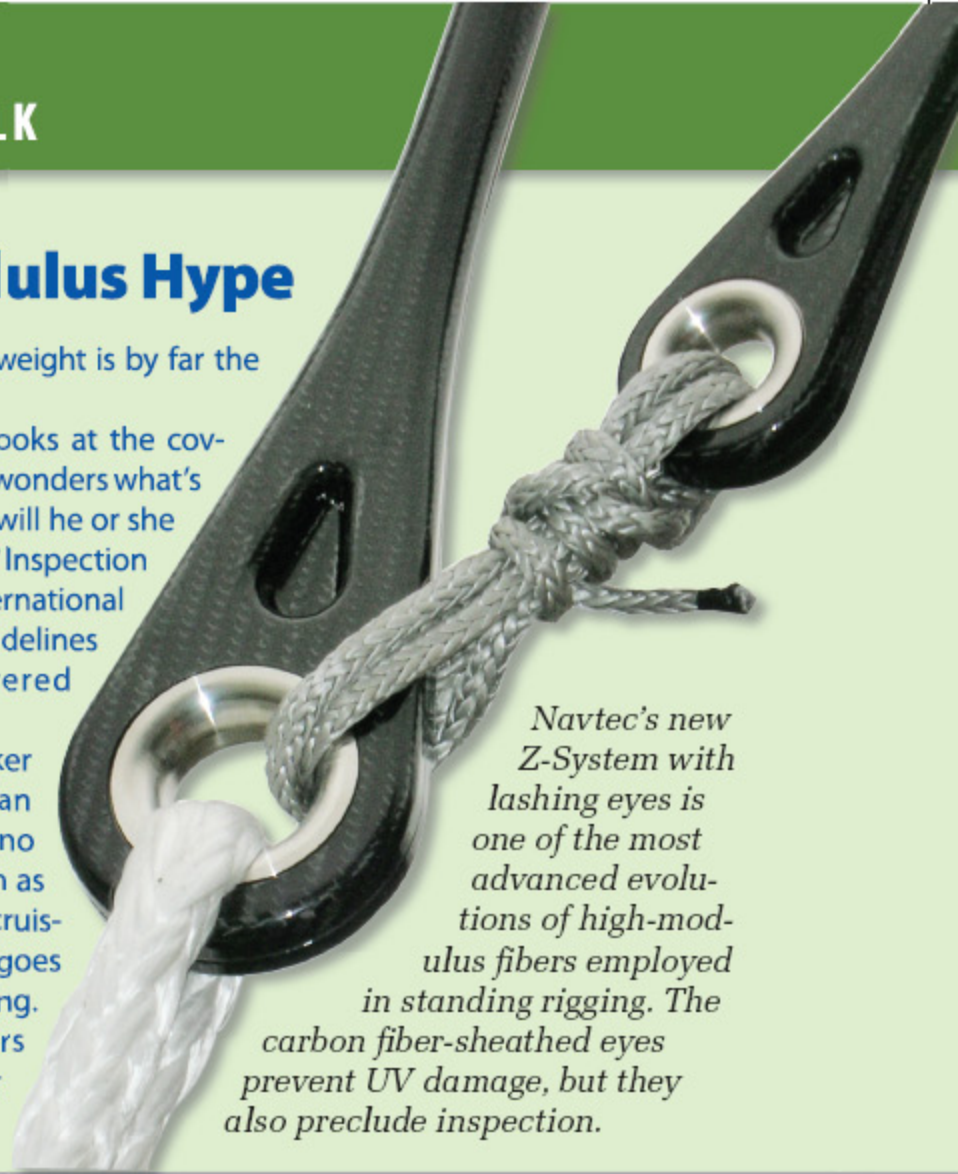
Not only does PBO rigging cost about four times more than stainless steel wire rigging, but its lifespan is highly questionable. There is a big difference between what happens in a lab and the rigors of duty on a cruising boat.

Bending high-modulus fibers around a thimble is no promise of an ideal termination. Moisture intrusion, UV degradation, abrasion, and inspection inability are why PBO rigging may be the "Emperor's New Clothes," rather than a sensible option for the club racer. For cruisers, it's a step backward in rig reliability, in our opinion.

Sure, PBO may simplify stepping and unstepping the rigs of small boats, but how hard is that really? A Cape Dory Typhoon has 8.5 pounds of 1x19 wire (standing rigging). Saving 3 or 4 pounds in an overall rig weight of 52 pounds doesn't make much difference, since spar weight is by far the biggest contributor.

When a surveyor looks at the covered PBO strands and wonders what's going on inside, how will he or she validate serviceability? Inspection access is why the International Sailing Federation guidelines recommend uncovered wire lifelines.

Boron-fiber spinnaker poles are lighter than carbon, but this by no means validates Boron as the pole material for cruising sailors. The same goes for high modulus rigging. Win-at-all-cost racers may view the matter differently.



Navtec's new Z-System with lashing eyes is one of the most advanced evolutions of high-modulus fibers employed in standing rigging. The carbon fiber-sheathed eyes prevent UV damage, but they also preclude inspection.